

L 34068-66

ACC NR: AP6019656

the probability of transition from $1s_2$ to the ground state is considerably greater than from $1s_4$. Thus, at the beginning of excitation the $1s_2$ level will be populated, and from this level the $2p$ levels are then populated. Assuming that the efficiency of such a mechanism is greater than that for the direct population of the $1s_{3,4,5}$ levels, then an inversion will appear between some $2p$ and one of the $1s_{3,4,5}$ levels. From the $2p_1$ level the only allowed transitions are those to the $1s_2$ and $1s_4$ levels. Thus only one line at $\lambda = 5400 \text{ \AA}$ due to transitions from the $2p_1$ level is generated. [JA]

SUB CODE:10,20/ SUBM DATE: 18Feb65/ ORIG REF: 004/ OTH REF: 004/ ATD PRESS:

5818

Cord

212-90

PETRASH, O.O.; KNYAZEV, I.N.

Pulsed radiation from a laser operating on and on a neon-helium mixture. Zhur. eksp. i teor. fiz. 45 no.4:833-839
0 '63.

(MIRA 16:11)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.

1 10694-66 FBO/EWT(1)/EWT(m)/EEC(k)-2/T/ENP(t)/ENP(k)/ENP(b)/ENA(m)-2/ENA(h) SCTR/
ACC NR: AF6001482 I.P.(t) NG/JE SOURCE CODE: UR/0368/657003/006/0510/0515

AUTHOR: Koyakov, I. M.

ORG: none

TITLE: The rotational structure of the oscillation spectrum of hydrogen and deuterium molecules

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 6, 1965, 510-515

TOPIC TAGS: laser, molecular spectrum, hydrogen, deuterium, vibration spectrum

ABSTRACT: The mechanism responsible for pulsed laser action on rotational levels of H_2 and D_2 in which excitation during the initial stage of the pulse discharge occurs by direct electron impact from the ground state is analyzed. It is shown that in addition to the Franck-Condon principle, it is also necessary to take into account certain features of rotational level population associated with the conservation of the molecular rotational state excited by electron impact. The peculiarities of a laser rotational spectrum (preferential laser action on P(2) and P(3) lines of H_2 and D_2 , respectively, the great difference in laser intensity of the P(2) and P(3) lines of H_2 , laser oscillation solely on orthomodifications) are explained qualitatively on the basis of the proposed excitation mechanism. Orig. art. has: 1 table, 2 formulas, and 2 figures. (CS)

SUB CODE: 20 SUBM DATE: 12Feb65/ ORIG REF: 003/ OTH REF: 007/ ATD PRESS:
Cord 1/1 HW UDC: 535.33 4/67

no. 4, 1964, 1590-1591

TOPIC TAGS: pulsed laser, molecular hydrogen laser, advanced laser,
hydrogen plasma, hydrogen laser, gas laser

ABSTRACT: The generation of a pulsed laser, which utilizes the
hydrogen plasma as the active medium, was studied

KNYAZEV, I.N.

Rotational structure of the generation of hydrogen and
deuterium molecules. Zhur. prikl. spekt. 3 no. 6:510-515
D '65 (MIRA 19:1)

1. Submitted February 12, 1965.

1 36342-65 EWG(j)/EWA(h)/FRD/EMI(i)/EDC(k)-2/EDC(l)/T/EDC(h)-2/EDC(m)/DWA(n)
ACCESSION NR: AP5008759 EWA(h) Pi-4/Po-4/Pf-4/Pet 8/0056/65/048/003/0975/0976
P4-4/P1-4 IJP(c) WQ
Knyazev, I. N. Petrush, G. I.

possibility of obtaining stimulated emission in the far-ultraviolet spectral

1965, 975-

by means of linearization for simplicity, referred to as the linear vibrational

Card 1/3

L 36342-65

AFSC008759

and 1250 Å due to the transitions shown in Fig. 1 of Arkov. Radiative transitions between vibrational levels are for-
 mally allowed at the upper vibrational level. It is impossible to obtain laser generation at 1250 Å. It is
 also applied if the upper electronic level is the upper electronic level. Orig. art. has 1 figure. (CS)

ASSOCIATION: Fizicheskiy institut im. P.N. Lebedeva Akademii nauk SSSR (Physics
 Institute, Academy of Sciences, USSR)

SUBMITTED: 07Dec64

ENCL: 01

SUB CODE: EC, 0P

FO REF SOV: 001

OTHER: 004

ATD PRESS: 3220

Card 2/3

1. X6342-65

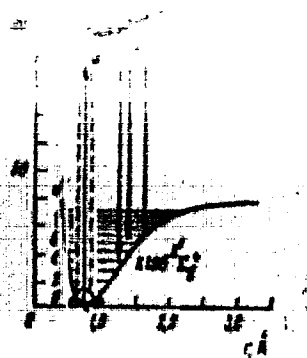


Fig. 1. Potential curves for the C and the I vibrations. E is in kcal/mole, r is in Å.

1000 cm⁻¹

L 61846-45 DMI(11)/FHO/DMI(11)/FMT(11)/FEC(11)-2/T/SEC(11)-2/20/41/241/21-2/
 Sh: H) Pw-4/Po-4/Po-4/Pf-4/Peb/Pl-4/Fl-4 SCTB/ISP(11) UR/2-6/55/049/001/0016/0023
 A. VERESIN MR. AP5019210

AUTHOR: Bashulin, P. A.; Knyazev, I. B.; Petrashev, G. G.

TITLE: Stimulated emission of hydrogen and deuterium molecules in the near-infrared spectral region

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 1, 1965, p. 1-4

Stimulated emission, laser, population, gas laser, 15, 14

... was obtained ... by means ...

MR. [REDACTED] for the first time are listed in a table together with the bend and the

of the [REDACTED] lines for [REDACTED] in the table

[REDACTED] [REDACTED] [REDACTED]

[REDACTED]

[REDACTED] between the two sets of data [REDACTED] [REDACTED] however,

[REDACTED] three lines of E) varied by an amount of [REDACTED] were 3000-

Cord 1/2

16-23

TOPIC TAGS: stimulated emission, laser, population inversion, gas laser, 54

ABSTRACT: Laser action was attained for the first time in D_2 and HD gases by means of a high-voltage excitation. The wavelengths of the emission lines from H_2 determined earlier by the authors (ZhETF, v. 47, no. 4(10), 1964, 1903) and redetermined with a greater degree of accuracy in the present experiments, and those of D_2 and HD for the first time are listed in a table together with the band and the wavelength. The first three lines for H_2 and the wavelength for HD in the table with an accuracy greater than 0.05 Å. The accuracy of the experimental

L 61886-65

ACCESSION NR: AP5019210

2

ured with an accuracy of about 10^{-8} , which is insufficient for positive identification
of the transitions tentatively assigned to these lines in column 4 of the table. A
mixture of equal parts of hydrogen and deuterium

... to the ... column 4 of the table ...
 weak oscillation line, observed in a mixture of equal parts of hydrogen and ...
 (46% HD, 27% H₂, and 27% D), measured with an accuracy of about 10 Å, falls within
 the 1 - 0 band of the electronic transition E - B of the HD molecule. A mechanism
 responsible for populating the vibrational levels in H₂, D₂, and HD molecules in-
 volved in the laser action is discussed in detail in terms of the Franck-Condon prin-
 ciple. A comparison of the theoretical results with the experimental data confirms
 the mechanism suggested for population inversion in the H₂, D₂, and HD molecules.
 Orig. art. has: 4 figures and 1 table. (CS)

ASSOCIATION. Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
 (Physics Institute, Academy of Sciences, SSSR) 44

"APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723330007-6

SUBMITTED: 2506004

NOV: 00

SUB CODE: 60

NO REF SOV: 003

OTHER: 011

ATD PRESS: 460

Cord

2/2

APPROVED FOR RELEASE: 06/19/2000

CIA-RDP86-00513R000723330007-6"

Knyazev, I.V.
KNYAZEV, I.V. (Bukhta Provideniya)

Course and results of treating chronic tonsillitis in the Far North.
Vest.oto-rin. 19 no.3:117 My-Je '57. (MIRA 10:10)
(TONSILS-DISEASES)

KRYAZEV, K.

Swine Breeding

Means of increased reproduction of hogs on state farms in the Moscow area.
Mias. ind. ISSN No. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____ August _____ 1952, Uncl.

KRYAZEV, K.; NOVIKOV, R.

More on industrial production cost indices. Fin. SSSR 22 no. 5:50-53
(MIRA 14:5)
My '61.

(Veronesh—Costs, Industrial) (Moscow—Costs, Industrial)

KNYAZEV, K.A.

Importance of affection for people. Yoen.-med. shur, no 9:10-12 '64.
(MIRA 18:5)

KNYAZEV, K. I., Cand Agr Sci -- (diss) "Effectiveness of commercial cross-breeding of hogs in fattening for meat." Moscow, 1959. 17 pp; (All-Union Scientific Research Inst of Animal Husbandry); 150 copies; price not given; (KL, 25-60, 126)

MALYUTA, D.I., inzh.; VO'LYNETS, M.A., inzh.; KIKOVKA, Ye.I., inzh.;
KNYAZEV, K.I., inzh.; YEFREMOV, E.I., kand. tekhn. nauk; IL'IN,
V.I., inzh.

Experience in the blasting of hard ores by deep boreholes
in the open-pit mine of the Krivoy Rog Mining and Ore Dressing
Combine. Varyv. delo no.57/14:145-151 '65. (MIRA 18:11)

1. Novo-Krivorozhskiy gornobogatitel'nyy kombinat (for Malyuta,
Volynets, Kikovka, Knyazev). 2. Filial Instituta mekhaniki
AN UkrSSR. (for Yefremov, Il'in).

KNYAZEV, K.I.

Effectiveness of fattening crossbred swine for bacon. Zhivot-
novodstvo 21 no.1:21-23 Ja '59. (MIRA 12:2)

1. Starshiy inspektor-sootekhnik Ministerstva sel'skogo khozyaystva
RSFSR.

(Swine breeds)

KUDRYAVTSKY, P.M., prof.; KNYAZEV, K.I., kand. sel'skokhos. nauk

Control in swine raising as an important means of reducing
feed expenditure (to be concluded). Zhivotnovodstvo 24
no.6:55-58 Je '62. (MIRA 17:3)

1. Vsesoyuznyy institut zhivotnovodstva.

85260

S/019/60/000/016/035/134

A152/A029

9.2580

AUTHORS: Knyazev, K.K., Konstantinov, N.A., Kuperosov, P.P., Essenson, A.Ya.TITLE: A Generator of a Voltage of Complex ShapePERIODICAL: Bulleten' izobreteniy, 1960, No. 16, p. 25

TEXT: Class 21e, 28₀₃. No. 130980 (642207/24, October 26, 1959). Dependent on Author's Certificate No. 96261. This generator has the following special feature: in order to synchronously vary the frequency of the higher harmonics and the fundamental frequency and to obtain signals with given distortions in a wide range of frequencies, the generator has, besides a generator with fixed tuning, a generator with continuous frequency retuning, serving to obtain a series of harmonics summed up with the harmonics of the generator with fixed tuning, as well as a voltage whose frequency is equal to the difference between the fixed and the continuously varying frequencies. It also has phase invertors and signal level regulators, serving to obtain a given phase shift and amplitude values of the sum harmonic voltages, and finally an additional summator for summing the voltage of the first harmonic and the voltage obtained at the output of the main harmonic summator.

Card 1/1

VOYEYKOV, Dmitriy Dmitriyevich; GERTSIGER, Leopold Naumovich;
KRYAZEV, Konstantin Konstantinovich; LIVSHITS, Il'ya
AFONOVICH; ~~LEVINSON, Al'bert Yurevich~~; POPOV, K.K., red.

[Design of low-frequency generators] Konstruirovaniya nizko-
chastotnykh generatorov. [By] D.D.Voeikov i dr. Moskva,
Izd-vo "Energia," 1964. 225 p. (MIRA 17:7)

KNIAZEV, K. V.

Tipovye prispособleniia pri ispytanii samoletov na prochnost'. (Tekhnika
vozdušnogo flota, 1944, no. 8-9, p. 15-17, illus.)

Title tr.: Standard devices for testing the structural strength of aircraft.

TL504.T4 1944

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of
Congress, 1955.

KNYAZEV, L.
KOROTSOV, I., dotsent; BEN'KOVSKIY D., dotsent; GAL'VEK-KOGAN, G., prepoda-
vatel'; KNYAZEV, L., inzhener.

More widespread use of progressive practices in the repair of ships.
Mor.flot 16 no.11:16-19 N '56. (MIRA 10:1)

1. Odesskiy institut inzhenerov morskogo flota (for Knyazev)
(Ships—Maintenance and repair)

KNYAZEV, L.V. (Odessa)

Use of antibiotics to prevent foulness of water. Priroda 48 no.6:
117 Jo '59. (MIRA 12:5)

(Antibiotics) (Aquariums)

ACC №: AT7000386

(N)

SOURCE CODE: UR/0000/66/000/000/0442/0451

AUTHOR: Kozdoba, L. A.; Knyazov, L. V.

ORG: Odessa Naval Engineering Institute (Odesskiy institut inzhenerov morskogo flota)

TITLE: Combined electrical models for solution of two- and three-dimensional problems in unsteady state heat conductivity

SOURCE: Teplo- i massopereenos, t. 6: Metody rascheta i modelirovaniya protsessov teplo- i massopereenos (Heat and mass transfer, v. 6: Methods of calculating and modeling heat and mass transfer processes). Minsk, Nauka i tekhnika, 1966, 442-451

TOPIC TAGS: heat conductivity, model theory, electronic simulation

ABSTRACT: Successful use has been made of the method of electrical modelling on ohmic resistance grid circuits for solution of the differential equation for unsteady state heat conductivity

$$\frac{\partial}{\partial x_i} \left(\lambda_{ii} \frac{\partial T}{\partial x_i} \right) - (c\rho) \frac{\partial T}{\partial t} \pm w = 0$$

with boundary conditions of the I-IV type (Dirichlet and Neumann problems, and the mixed problem), as well as for solution of a system of differential equations of heat and mass transfer under given boundary conditions. For solution of the problem of non-linear equations, with variable coefficients and sources (sinks) of heat, use is

Cord 1/2

ACC NR: AT7000386

preferably made of variable wire resistances. Figure 1 shows the scheme of an electrical model. Analysis of the results of the calculations shows a high degree of accuracy and good agreement with existing experimental data. Orig. art. has: 5 figures and 1 table.

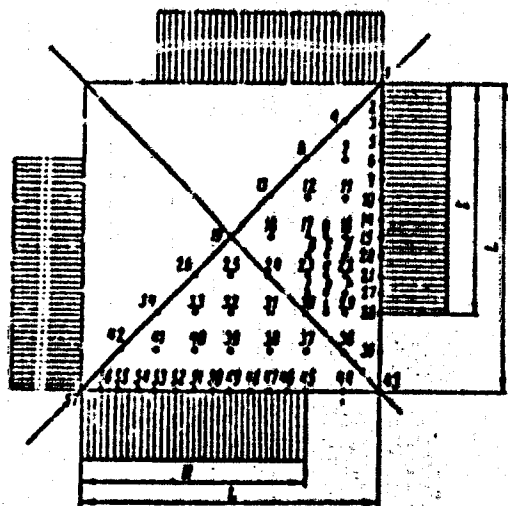


Figure 1. Scheme of a combined model for the solution of unsteady state heat conductivity problems

SUB CODE: 12, 20/ SUBM DATE: 08Jun66/ ORIG REF: 005/ OTH REF: 002
Card 2/2

KOZDOBA, L. A.; KNYAZEV, L. V.

"Combined electric net models for solution of two- and three-dimensional unsteady heat-conduction problems."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Odessa Inst of Naval Engineering.

L 52315-65

ACCESSION NR: AP5011772

at 10. The spectral signature distribution
are shown

Fig. 1. Temperature distribution along the width of the shaft (8,28) and along the rim of the disk (55).

Card 3/3 7-45

1. KRYAZEV, M.
2. USSR (670)
4. Electric Apparatus and Appliances
7. High tension device. MTS 13 No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

YUFIT, S.Ye.; KNYAZEV, M.D.; SMIRNOVA, L.A.

Importance of a complex study of the blood coagulation system in Leriche's syndrome. Terap.arkh. no.7:24-29 J1 '62. (MIRA 15:8)

1. Iz gosital'noy khirurgicheskoy kliniki (dir. - deystvitel'nyy chlen AN SSSR prof. B.V. Petrovskiy) i Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

**(ARTERIOSCLEROSIS) (AORTA—DISEASES) (BLOOD—COAGULATION)
(VERTEBRAL ARTERY—DISEASES)**

KNIAZEY, M.D.

Clinical aspects, diagnosis, and surgical treatment of atherosclerotic occlusions in the aortic bifurcation and iliac arteries.
Zdrav. Bel. 9 no.3: 8-13 Mr'63 (MIRA 16:12)

1. Iz gospiatal'noy khirurgicheskoy kliniki 1-go Moskovskogo ordena Lenina meditsinskogo instituta (sav. - deystvitel'nyy chlen AMN SSSR, prof. B.V. Petrovskiy).

USTICH, A.F., starshiy elektromekhanik; KNYAZEV, M.N., starshiy
insbener; CHEPELEVICH, M.I.

From the editors' mail. Avtom., telem. i svyaz' 5 no.3:44 Mr
'61. (MIRA 14:9)

1. Mineralovodskaya distantziya signalizatsii i svyazi Severo-Kavkazskoy dorogi (for Ustich).
2. Nadeshdinskaya distantziya signalizatsii i svyazi Sverdlovskoy dorogi (for Knyazev).
3. Nachal'nik laboratorii signalizatsii i svyazi Litovskoy dorogi, (for Chepelevich).

(Railroads--Electric equipment)
(Railroads--Communication systems)
(Railroads--Signaling--Interlocking systems)

GOLOULINA, G.P.; SHUGOL', S.Z.; KATUSHKIN, V.P.; KNYAZEV, M.N.

Remote control of the quality and quantity of tire casings
built at the Kirov Tire Factory. Kauch.i res. 21 no.2:44-45
P '62. (MIRA 15:2)

1. Kirovskiy shinnyy zavod.
(Kirov (Kirov Province)—Tires, Rubber)

9/019/60/000/014/069/096
A152/A029

AUTHOR: Knyazev, N.A.

TITLE: A Magnetic Flaw Detector

PERIODICAL: Byulleten' izobreteniy, 1960, No. 14, p. 48

TEXT: Class 42k, 4603; No. 130232 (645243/25 of November 26, 1959). This magnetic flaw detector is for testing steel cables and contains a main electromagnet for magnetizing the tested object and an indicating electromagnet consisting of a π -shaped wound core placed on the surface of the object symmetrically between the poles of the main electromagnet. It has the following special feature: to increase the sensitivity of the indicating electromagnet, the lateral bars of its core are shifted in respect to each other by the thickness of the cable being tested and are provided with semi-circular end pieces passing round the surface of the cable from opposite sides. ✓

Card 1/1

KNYAKHY, N.I., inshener.

Reconstructing the unloading platform of a closed coal storage bin.
Elek.sta. 26 no.3:50-51 Nr '55. (MLRA 8:2)
(Coal--Transportation)

KRYAZEV, N. (g.Oer'kiy)

Reversible steam boiler. Prom. keep. no. 8:19 Ag '56. (MIRA 9:10)

1. Glavnyy inzhener arteli "Kotel'shchik".
(Boilers)

KNYAZEV, N., mladshiy nauchnyy sotrudnik

Utilisation of gas-turbine installations with free-bearing
gas generators on merchant ships. Mor.flot 19 no.10:41-42
0 '59. (MIRA 13:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo
flota.

(Marine gas turbines)

KNYAZEV, N., mladshiy nauchnyy sotrudnik

Use of gas turbine plants with free piston gas generators on the
ship "William Patterson". Mor.flot 20 no.1:39-40 Ja '60.
(MIRA 13:5)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota.
(Marine gas turbines)

KNYAZEV, N. K.

KNYAZEV, N. K. -- "A Comparative Study of the Growth and Development of Calves from Crossing Kholmogory Cattle with Siementhal and Kostroma Breeds." Moscow Order of Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1956. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So.: Knishnaya Letopis', No. 6, 1956.

KNYAZEV, Nikolay Kus'mich, kand. sel'khoz. nauk; KOVLER, B.A., inzh.-
arkhitekt; TASHCHEV, Ye.M., kand. ekonom. nauk; LAPIDUS, M.A.,
red.; GURKOVICH, M.M., tekhn. red.

[Economic livestock buildings] Ekonomichnye shivotnovodcheskie po-
meshcheniya. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1960. 109 p.
(MIRA 14:11)

(Farm buildings)

PENTYUK, M.V., kand. sel'khoz. nauk; UDOVENKO, Ye.Ye., otv. red.;
KNYAZEV, M.K., red.; TASHCHEV, Ye.N., red.; SVYADOSTS, Yu.I.,
red.; SMIRNOV, N.A., red.

[Problems in increasing the number of sheep and the production
of mutton] Voprosy uvelicheniia pogolov'ia ovets i proizvodstva
baraniny. Moskva, Vses. nauchno-issl. in-t ekonomiki sel'.
khoz., 1962. 93 p. (MIRA 15:11)

(Sheep)

1. no.
of
bar-
khoz

BAKULIN, I.I., starshiy nauchnyy sotrudnik; BOGACHIK, I.A., starshiy nauchnyy sotrudnik; KNYAZEV, M.K., starshiy nauchnyy sotrudnik; MASHKEVICH, M.G., starshiy nauchnyy sotrudnik; PIS'MENNYI, I.G., starshiy nauchnyy sotrudnik; UDOVENKO, Ye.Ye., starshiy nauchnyy sotrudnik

Specialisation of farms for securing the supply of fresh milk to the population of large cities. Zhivotnovodstvo 23 no.7:16-23 J1 '61. (MIRA 16:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva.
(Dairying)

KNYAZEV, N.M., inshonor; SINYAVSKIY, A.V., inshonor; STARIKOV, M.G., inshonor.

Changing by means of additives the properties of heating surface
deposits of boilers using fuel oil. Elek.sta.28 no.1:22-25 Ja '57.
(MIRA 10:3)

(Boilers)

MYAZEV, Nikolay Mikhaylovich; TALMIRIDI, L., red.

[High efficiency tools; for turners and drillers] Instrumenty vysokoi proizvoditel'nosti; dlia tokarei i sverlovshchikov. Penza, Penzenskoe knizhnoe izd-vo, 1963. 51 p. (MIRA 17:6)

KRYAZEV, N.N.

Water injection into diesels for the purpose of intermediate
air cooling during pressure charging. Trudy TSNIMF no.20:27-35
'58. (MIRA 12:1)
(Marine diesel engines)

KNYAZEV, N.N., insh.

"Power plants with free-piston gas generators" by F.M.
Elistratov, V.M.Koliuko, M.S.Tomilin. Reviewed by N.N.
Knyazev. Sudostroenie 26 no.6:74 Je '60.

(MIRA 13:7)

(Marine gas turbines) (Elistratov, F.M.)
(Koliuko, V.M.) (Tomilin, M.S.)

KOIXAKO, Vadim Mikhaylovich; BERSHADSKIY, S.A., inzh., retsentsent;
KNIAZEY, N.M., inzh., retsentsent; VORONOV, I.P., nauchnyy
red.; POLYAKOV, I.I., red.; ERASOVA, N.V., tekhn.red.

[Testing of free piston gas generators] Ispytaniia svobodno-
porshnevnykh generatorov gaza. Leningrad, Gos. soiusnoe ind-vo
sudostroit. promyshl., 1961. 206 p. (MIRA 15:3)
(Gas producers—Testing)

KNIAZEV, N.N.

Water injection in diesel engines and gas-turbine plants. Inform. sbor.
TSNIIMF no.69 Tekh. ekspl. mor. flota no.12:34-45 '41 (MIRA 16:3)
(Marine diesel engines) (Marine gas turbines)

S/262/62/000/012/011/013
1007/1207

AUTHOR: Knyazev, N. N.

TITLE: Water injection in free-piston gas engine

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, 12, 1962, 91, abstract 42.12.609. "Tr. Tsentr. n.-i in.-ta morsk. flota", no. 34, 1961, 52-78

TEXT: Proceeding from the thermodynamical relationships and a theory of the working cycle of an internal combustion engine, the author derives basic laws governing the action of water injection on free-piston gas-engine performance. According to his preliminary calculations, water injection appears to have a definite advantage for increasing power and reducing thermal and mechanical stresses.

[Abstracter's note: Complete translation.]

Card 1/1

S/262/62/000/008/009/022
1007/1207

AUTHOR: Knyazev, N. N.

TITLE: Some problems of the study of ideal cycles in gas combined with free piston gas-generators

PERIODICAL: Referativnyy zhurnal, otde'l'nyy vypusk. 42. Silovyye ustanovki, no. 8, 1962, 33, abstract 42.8.166. "Tr. Tsentr. n. i. in-ta morsk. flota", no. 34, 1961, 112-123

TEXT: The following ideal cycles of free-piston gas turbine units were studied: the simple cycle, the cycles with intermediate cooling after compression, with preliminary compression, and with preliminary compression combined with intermediate cooling before compression. It is shown that the cycles with intermediate cooling have much lower efficiency as compared to simple cycles, while the use of intermediate compression increases the specific output up to 90% and the efficiency of the cycle by 10 to 15%. ✓

[Abstracter's note: Complete translation.]

Card 1/1

KNIAZEV, N.N.; VOZNEV, N.A.; ARTAMONOV, M.N.

Weight and size indices of marine gas turbine plants with free
piston gas producers. Trudy TSNIIMF 7 no.34:79-88 '61.
(MIRA 14:8)

(Marine gas turbine) (Marine diesel engines)

KNYAZEV, N.N.

Investigating the use in diesels of a double injection of
fuel. Trudy TSNIMF no.38:91-101 '61. (MIRA 15:9)
(Marine diesel engines)

KNYAZEV, N.N., inzh.

Water injection in diesel engines. Sud.sil.ust. no.1:161-164
'61. (MIRA 15:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota,
Leningrad.

(Marine diesel engines)

S/145/62/000/001/009/010
D262/D308

AUTHOR: Knyazev, N.N., Senior Scientific Assistant

TITLE: The effect of water injection on the parameters of the free-piston gas generator

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashino-stroyeniye, no. 1, 1962, 114 - 131

TEXT: The following cases were investigated theoretically: 1) The effect of the amount of evaporated water on the temperature at the end of compression and on the compression work of the compressor, for different ratios of pressure increase (τ_k). 2) The effect of the amount of evaporated water on various parameters and dimensions of the generator for various maximum temperatures of the cycle. 3) The effect of pressure increase ratios on various parameters and dimensions of the generator and the compressor, with and without water injection. The results of the experimental investigation of the effect of injected water on the parameters of the machine, made on the free-piston diesel compressor AK-2 (DK-2), especially, equipped

Card 1/2

The effect of water injection on ...

S/145/62/000/001/009/010
D262/D308

for this purpose, are tabulated and analyzed. General conclusions:
Water injection lowers the temperature of the scavenging air and
permits an increase of the output of the free-piston gas generator;
this can be achieved by increasing the piston stroke or the diameter
of the compressor cylinder. There are 11 figures and 1 table.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota (Central Scientific Research Institute of the Maritime Fleet)

Card 2/2

KNYAZEV, N.N., inzh.; KURZON, A.G., doktor tekhn.nauk

Results of testing and experimental operation of gas turbine
plants with free piston gas generators on "Pavlin Vinogradov"-
type lumber carriers. Sudostroenie 28 no.7:28-31 JI '62.

(MIRA 15:8)

(Marine gas turbines--Testing)

KURZON, A.G., doktor tekhn. nauk, nauchn. red.; ROZENBERG, G.Sh.,
kand. tekhn. nauk, nauchn. red.; KNIAZEY, N.N., inzh.,
nauchn. red.; MEZHERITSKIY, A.D., inzh., nauchn. red.

[Marine gas turbines] Sudovye gasovye turbin. Leningrad,
Izd-vo "Morskoi transport," 1961. 177 p. (MIRA 17:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut morskogo flota (for Kurzon, Mezheritskiy).

ACC NR: AP7002538

(A)

SOURCE CODE: UR/(413/66/000/023/0012/0012

INVENTOR: Knyazev, N. N.; Bokov, Yu. S.; Lavrishev, V. P.; Pavlov, S. A.

ORG: none

TITLE: Preparative method for crosslinked polymer coatings. Class 8, No. 188942

SOURCE: Izobreteniya, promyshlennyye obrasty, tovarnyye znaki, no. 23, 1966, 12

TOPIC TAGS: polymer coating, chlorosulfonated polyethylene, polymer crosslinking, UV irradiation

ABSTRACT:

An Author Certificate has been issued for a method of preparing crosslinked chlorosulfonated polyethylene-based polymer coatings with improved mechanical properties. The method involved application on the substrate of a chlorosulfonated polyethylene solution containing added triethylene glycol dimethacrylate and a sensitizer [unspecified], removal of the solvent by drying, and UV irradiation.

SUB CODE: 11, 07/ SUBM DATE: 17Dec64/ ATD PRESS: 5112

Card 1/1

UDC: 678.741-416-9:547.391.3'422.2

DZYUBA, V.B., inzh.; KNYAZEV, O.O., inzh.

Studying the performance of a suspension bridge by means
of a model. Stroikonstr. no.1:171-178 '65.

(MIRA 19:1)

1. Nauchno-issledovatel'skiy institut stroitel'nykh konstruktsiy
Gosstroya SSSR, Kiev.

1. KNYAZEV, P. Eng.
2. USSR (600)
4. Agricultural Machinery
7. How to set up a simple feed steaming plant. Kolkh.proiz. 12 no. 12, 1952.

9. Monthly List of Russian Accessions. Library of Congress; March 1953, Unclassified.

KNYAZEV, P.I.

**FRENKEL', S.N.; KAPLAN, A.A.; PEREPELITSKIY, S.O.; GOLOVKIN, P.I.;
KNYAZEV, P.I.**

Discussion of the use of PFV wires. Prom.energ. 11 no.8:24-26
Ag '56. (MLRA 9:11)

1. Glavoelektrmontash Ministerstva stroitel'stva (for Frenkel').
 2. Moskovskoye proyektno-eksperimental'noye otdeleniye Gosudarstvennogo Politehnicheskogo instituta Tyazhpromoelektronproyektov (for Kaplan).
 3. Elektrotel instituta "Mosproyekt" (for Perepelitskiy).
 4. Gorodskaya elektroinspektziya Energoob'ed. Moskvy (for Golovkin and Knyazev).
- (Electric wire, Insulated)

KOLESOV, D.S., inzh., otv. za vypusk; CHUMAKOV, N.M., red.; KIREYEV, M.I., red.; AKULOV, Ye.F., red.; IVANOV, N.M., red.; KHYZEV, P.I., red.; CHICHILLO, I.K., red.; VOROTNIKOVA, L.F., tekhn. red.

[Safety regulations for operating and servicing the electric power systems of industrial enterprises; obligatory for industrial enterprises, economic councils, ministries, and governmental agencies] Pravila tekhnicheskoi ekspluatatsii i bezopasnosti obsluzhivaniia elektroustanovok promyshlennykh predpriatii; obiazatel'ny dlia promyshlennykh predpriatii sovetskikh, ministerstv i vedomst. Utverzhdeny 10 fevralia 1961 g. Moskva, Vses.izdatel'sko-poligr. ob"edinenie M-va pu-
 (MIRA 15:4)
 1. Russia(1923- U.S.S.R.)Glavnoye energeticheskoye upravleniye.
 (Electric power distribution--Safety regulation)

CHUMAKOV, N.M., red.; KIREYEV, "I.I., red.; ANULOV, Ye.F., red.;
IVANOV, N.M., red.; KRYAZEV, P.I., red.; CHICHILLO, I.K.,
red.; MEL'NIK, V.D., red.

[Regulations for operating and safety measures in servicing
the electrical systems of industrial enterprises; mandatory
for industrial enterprises of regional economic councils,
ministries, and departments] Pravila tekhnicheskoi ekspluata-
tsii i bezopasnosti obsluzhivaniia elektroustanovok pro-
myshlennykh predpriatii; obiazatel'ny dlia promyshlennykh
predpriatii sovmarkbozov, ministerstv i vedomstv.
Dnepropetrovsk, Izd-vo "Promin'," 1965. 257 p.
(MIRA 18:8)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravle-
niye.

AKULOV, Ye.F., red.; IVANOV, N.I., red.; KIRKIN, M.I., red.; KNYAZEV, P.I., red.; CHICHILLO, I.K., red.; ZHITNIKOVA, O.S., tekhn.red.

[Regulations for the technical operation and safe maintenance of electric installations in industrial enterprises; compulsory for industrial enterprises of economic councils ministries and departments] Pravila tekhnicheskoi ekspluatatsii i bezopasnosti obalushivaniia elektroustanovok promyshlennykh predpriatii; obiazatel'ny dlia promyshlennykh predpriatii sovmarkhczov, ministerstv i vedomstv. Izd.2., stereotipnoe. Uvershdeny 10 fevralia 1961 g. Moskva, Gosenergoizdat, 1962. 267 p. (MIRA 15:7)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravleniye, (Electric engineering--Safety regulations)

CHUMAKOV, N.M., red.; KIRKTEV, M.I., red.; AKULOV, Ye.F., red.;
IVANOV, N.I., red.; KNYAZEV, P.I., red.; CHICHILLO, I.K.,
red.; KIRKTEV, M.I., red.;

[Safety engineering regulations for operating and servicing
electrical systems of industrial enterprises; mandatory for
industrial enterprises, economic councils, ministries, and
departments] Pravila tekhnicheskoi ekspluatatsii i besopas-
nosti obsluzhivaniia elektroustanovok promyshlennykh pred-
priatii; obiasatel'nye dlia promyshlennykh predpriatii, sov-
narkhsov, ministerstv i vedomstv. Utvrashdeny 10 fevralia 1961 g.
Moskva, Metallurgizdat, 1962. 360 p. (MIRA 15:10)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravleniye.
(Electric power distribution—Safety regulations)

CHUMAKOV, M.M., red.; KIRYEV, M.I., red.; AKULOV, Ye.F., red.;
IVANOV, M.M., red.; KNYAZEV, P.I., red.; CHICHILLO, I.K.,
red.; KRYLOV, A.G., red.; GLUSHKO, G.I., tekhn. red.

[Safety engineering regulations for operating and servicing
electrical systems of industrial enterprises required for
the industrial plants of economic councils, ministries, and
departments] Pravila tekhnicheskoi ekspluatatsii i bezopasnosti
obsluzhivaniia elektroustanovok promyshlennykh predpriatii;
obiasatel'ny dlia promyshlennykh predpriatii sovmarkhsozov,
ministerstv i vedomstv. Utvershdeny 10 fevralia 1961 g. Mo-
skva, Dnepropetrovskoe knizhnoe izd-vo, 1962. 279 p.
(MIRA 16:3)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye upravle-
niye.

(Electric power distribution--Safety regulations)

CHUMAKOV, N.M., red.; KIRYEV, M.I., red.; AKULOV, Ye.F., red.;
IVANOV, N.N., red.; KNYAZEV, P.I., red.; CHICHILLO, I.K.,
red.; MEL'NIK, V.D., red.

[Safety engineering and operation regulations for the
maintenance of the electrical systems of industrial
enterprises; mandatory for industrial enterprises, eco-
nomic councils, ministries, and enterprises] Pravila
tekhnicheskoi ekspluatatsii i bezopasnosti obalushiva-
niia elektroustanovok promyshlennykh predpriatii; obia-
zatel'ny dlia promyshlennykh predpriatii sovmarkhozov,
ministerstv i vedomstv. Dnepropetrovsk, Izd-vo "Promin",
1964. 305 p. (MIRA 18:2)

1. Russia (1923- U.S.S.R.) Glavnoye energeticheskoye
upravleniye.

16(1)

SOV/140-59-2-9/30

AUTHOR:

Knyazev, P.N.

TITLE:

On the Utilization of the Minimax Properties in the Perturbance Theory (Ob ispol'zovanii svoystv minimaksa v teorii vozmushcheniy)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1959, Nr 2, pp 94-100 (USSR)

ABSTRACT:

Let A be a completely continuous and selfadjoint operator. Let the one-dimensional operator B be defined by $B = \mu(\cdot, \psi)\psi$, ($\mu > 0$) (stretching in the direction of the vector ψ with the coefficient μ and suppression of the vectors perpendicular to ψ).
 Theorem: If λ is a k -fold eigenvalue of A , then it is at least a $(k-1)$ -fold eigenvalue of $A+B$. By adding of B the eigenvalues of A are displaced towards the right hand side at most by $|\mu|$ for $\mu > 0$ and towards the left hand side for $\mu < 0$.

Theorem: If A is bounded and selfadjoint and if its spectrum consists of finitely many eigenvalues, then the spectrum of $A+B$ arises out of that of A as in the first theorem.

Theorem: If A is bounded and selfadjoint and if it has a purely continuous spectrum on $[a, a_1]$, then the spectrum of $A+B$ consists of (a, a_1) and at most one further eigenvalue $\nu > a_1$ for $\mu > 0$ or

Card 1/2

10

On the Utilization of the Minimax Properties
in the Perturbance Theory

S07/140-59-2-9/30

$v < a$, for $\mu < 0$.

Four further theorems of similar contents are formulated. The author thanks the Docent M.K.Gavurin for advices. He mentions I.M.Lifshits.

There are 2 references, 1 of which is Soviet and 1 Hungarian.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova
(Leningrad State University imeni A.A.Zhdanov)

SUBMITTED: April 5, 1958

Card 2/2

85928

S/140/60/000/003/007/011
0111/0222

16.3400

AUTHOR: Kayasev, P.N.

TITLE: Completely Continuous Perturbation of Hill's Equation on the
Semiaris

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, 1960,
Nr.3, pp.163-167

TEXT: The author considers the Hill's equation $-y'' + q_0(x)y = 0$, where
 $q_0(x)$ is continuous and $q_0(x+1) = q_0(x)$. Let L be the operator

determined by the expression $-\frac{d^2}{dx^2} + q_0(x)$ and by the boundary condition

$y(0) \sin \alpha + y'(0) \cos \alpha = 0$. Its spectrum consists of the intervals
 $[a_n, b_n]$, $a_n < b_n < a_{n+1}$, $n = 1, 2, \dots$. Adding to $q_0(x)$ a continuous negative
function $p(x)$ which tends to zero for $x \rightarrow \infty$, then to the expression

$-\frac{d^2}{dx^2} + \{q_0(x) + p(x)\}$ with the above boundary condition there corresponds

Card 1/2

85928

S/140/60/000/003/007/011
0111/G222

Completely Continuous Perturbation of Hill's Equation on the Semiaxis
the perturbed operator $\tilde{L}$. It is stated that the spectrum of $\tilde{L}$ beside of
the intervals $[a_n, b_n]$, $n = 1, 2, \dots$ has at most a countable number of
isolated eigenvalues of finite multiplicity in the intervals (b_n, a_{n+1}) ,
 $n = 1, 2, \dots$. If a countable number of eigenvalues lies in (b_{n_0}, a_{n_0+1}) ,
then their accumulation point can only be the point b_{n_0} .

The author mentions I.M.Glasman and V.B.Lidskiy. There are 9 references:
5 Soviet, 3 German and 1 Canadian.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova
(Leningrad State University imeni A.A.Zhdanov)

SUBMITTED: September 10, 1958

Card 2/2

KNYAZEV, P.M.

Necessary and sufficient conditions for the comparability of operators. Usp. mat. nauk 18 no.4:151-153 J1-Ag '63. (MIRA 16:9)

KNYAZEV, P.M.

Comparability condition for monotone functions from operators.
Vestsi AN BSSR. Ser. fiz.-tekhn. nav. no.2:26-28 '64.

(MIRA 18:1)

~~SECRET~~ ~~SECRET~~
BEREZIN, M.M.; TIKHOMIROV, S.M. (g. Vladimir); NIKOLAYEV, S.D.; GRITSYUK,
I.P.; ~~KRYAZEV, P.V.~~ (g. Shakhty Kamenskoy oblasti); BOCHAROV,
V.S.; YAKHOV, V.V.; SHUMILOV, D.

Useful advice. Fiz. v shkole 17 no.3:62-64 My-Je '57.

(MIRA 10:6)

1. Gorodskoy institut usovershenstvovaniya uchiteley, g. Moskva (for Beresin). 2. Klyuchevskaya semiletnyaya shkola Sasovskogo rayona Ryazanskoy oblasti (for Nikolayev). 3. 27-ya shkola, g. Kherson (for Grityuk). 4. Dokshukinskaya srednyaya shkola Kabardinskoy ASSR (for Bocharov). 5. 48-ya shkola, g. Chelyabinsk (for Yershov). 6. Gorodskoy institut usovershenstvovaniya uchiteley, g. Chelyabinsk (for Shumilov).

(Physics--Experiments)

GOLODIN, N.A., kand. med. nauk, podpolkovnik med. sluzhby; KNYAZEV, P.V.,
podpolkovnik med. sluzhby.

Electrocardiographic studies in chronic diseases of the myocardium
in flying personnel. Voen.-med. zhur. no.1:64-69 Ja '59. (MIRA 12:3)

(MYOCARDIUM, dis.

dystrophy in aviators, ECG (Rus))

(ELECTROCARDIOGRAPHY, in various dis.

myocardial dystrophy in aviators (Rus))

(AVIATORS, dis.

myocardial dystrophy, ECG (Rus))

KNIAZEV, S., insh.

Principal stages in the development of the river fleet of
the U.S.S.R. Rech. transp. 24 no. 10:8-12 '65. (MIRA 18:12)

KNYAZEV, S., insh.

Aluminum rivercraft, Rech. transp. 24 no.4:60-62 '65.

(MIRA 18:5)

1. Gosudarstvennyy institut proyektirovaniya na rechnom transporte.

KNYAZEV, S., Inzh.

Folding hatch cover for rivercraft. Rech. transp. 24 no.6:54
'65. (MIRA 18:8)

KNIAZEV, S., insh.

Electromagnetic mooring devices. Rech. transp. 22 no. 5:54-55
My '63. (MIRA 16:8)

(Germany, West—Anchorage)
(Electromagnets)

KNYAZEV, S., inah.

New river tankers [in foreign countries]. Rech. transp.
20 no.11:52-58 N '61. (MIRA 15:1)
(Tank vessels)

KHYAZEV, S., insh.

Data on river transportation in the United States. Rech. transp.
21 no.6:55 Je '62. (MIRA 15:7)
(United States--Inland water transportation)

KNIAZEV, S., insh.

Foreign experience in the construction of aluminum river tankers.
Rech.transp. 21 no.11:58-59 N '62. (MIRA 15:11)
(Tank vessels)

KNIAZEV, S., insh.

Canadian self-unloading lumber-carrying barges. Rech. transp.
21 no.1:52-53 Ja '62. (MIRA 16:8)

(Canada—Barges)
(Lumber—Transportation)

KNIAZEV, S.

Freight carrier motorship for the Volga - Baltic Sea Waterway. Rech.
transp. 22 no.3:31-33 Mr '63. (MIRA 16:4)

1. Predsedatel' Gosudarstvennoy komissii po priyemu golovnogo
teplakhoda proyekta No.791.
(Volga--Baltic Sea Waterway--Freighters)

KNYAZEV, S.A.kand.tekhn.nauk

**Sawing with circular saws without setting teeth. Der.prom. 8
no.2:11-12 F '59. (MIRA 12:2)**

- 1. Ordana Lenina Lesotekhnicheskaya akademiya in. S.M.Kireva.
(Circular saws)**

LAPTEV, Aleksandr Grigor'yevich; MOROZOV, N.A., dots., kand.
tekhn. nauk, retsenzent; IVANOVSKIY, Ye.G., dots.,
kand. tekhn. nauk, retsenzent; KNYAZEV, S.A., dots.,
kand. tekhn. nauk, retsenzent; GRUBB, A.B., prof.,
doktor tekhn. nauk, otv. red.; BEZGODOVA, L.V., red.

[Machines and instruments for wood processing; manual on
the preparation of a course project for students of the
Faculty of Mechanical Wood Processing] Stanki i instrumen-
ty po obrabotke drevesiny; posobie k kursovomu proektiro-
vaniyu dlia studentov fakul'teta mekhanicheskoi tekhnolo-
gii drevesiny. Leningrad, Vses. zaachnyi lesotekhn. in-t,
1963. 161 p. (MIRA 17:5)

KNYAZEV, S.A.; TARBATYEV, B.I.

New data on the geology of the Chernyshev Ridge. Mat.po geol.i
pol.iskop.Sev.-Vost.Evrop.chast1 SSSR no.1:23-33 '61. (MIRA 14:11)
(Chernyshev Ridge--Geology)

KNYAZEV, Sergey Aleksandrovich, kand. tekhn.nauk; MALYSHEV, V.V., dots., kand. tekhn.nauk, iatsentent; KORSHUNOV, A.M., kand. tekhn. nauk, reitsentent; LAUTNER, E.M., dots., kand. tekhn.nauk, otv. red.; BEZGODOVA, L.V., red.; URITSKAYA, A.D., tekhn. red.

[Machines and instruments for mechanical processing of wood; general problems in the theory of cutting] Stanki i instrumenty po mekhanicheskoi obrabotke drevesiny; obshchie voprosy teorii rezaniia. Lektsiia dlia studentov fakul'teta mekhanicheskoi tekhnologii drevesiny. Leningrad, Vses. nauchnyi lesotekhn. in-t, 1963. 37 p. (MIRA 16:9)
(Woodworking machinery)

KNIAZEV, S.A.

Microfauna complex of limestones with *Liorhynchus ursus* Mal. of
Chernyshev Ridge. Dokl. AN SSSR 150 no.5:1112-1115 Je '63.
(MIRA 16:8)

Is Ukhтинskoye territorial'noye geologicheskoye upravleniye.
Predstavleno akademikom D.V.Nalivkinym.
(Chernyshev Ridge--Micropaleontology, Stratigraphic)

KNYAZEV, S. I. (g. Sverdlovsk)

Determining the refractive index of a substance. Fis. v shkole
22 no. 4:64-65 J1-Ag '62. (MIRA 15:10)

(Refractive index)
(Physics—Experiments)

KNYAZEV, S. I.

Maize - Siberia

Checkrowing of early-maturing corn in Western Siberia, Sov. agron. 10 No. 4,
1952

9. Monthly List of Russian Accessions, Library of Congress, July 1952, Uncl.

KNYAZEV, S.I.

USSR/Cultivated Plants - Grains.

M-2

Abs Jour : Ref Zhur - Biol., No 20, 1958, 91643

Author : Knyazev, S.I.

Inst : Altay Agricultural Institute.

Title : Scientific Investigation Work of the Plant Cultivation
Department on the Study of Corn.

Orig Pub : Tr. Altaysk, s.-kh. in-ta, 1957, vyp. 5, 47-56.

Abstract : No abstract.

Card 1/1

- 39 -

L 44299-66

ACC NR: AP6022208

SOURCE CODE: UR/0115/66/000/005/0077/0078

AUTHOR: Knyazev, S. I.

ORG: none

TITLE: Optical method for adjustment of concave spherical mirrors

SOURCE: Izmeritel'naya tekhnika, no. 5, 1966, 77-78

TOPIC TAGS: theodolite, optic/theodolite, optic image, optic lens, optic reticle, rotating mirror camera, mirror, *optic method /TB-1 theodolite, OT-2 theodolite*

ABSTRACT: Methods for mounting concave spherical mirrors with the aid of two collimators or special theodolites, the TB-1 and the OT-2, are complex and cumbersome. The method proposed in this paper for mounting concave spherical mirrors consists of a simple optical device with two circles attached to a common base. A reticle is installed on the rotating axis of each circle, one of its lines coinciding with the rotating axis of the corresponding circle and the second line perpendicular to it. The flat reticles are mounted parallel to each other. One collecting lens with a focal length of 15—20 cm is attached to each circle to allow the

Card 1/2

